



**FOR IMMEDIATE RELEASE:**

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**SME Tells Governor Schweitzer of Highwood Generating Station  
EIS Completion and CO<sub>2</sub> Capture Commitment**

(Helena) - In a meeting with Governor Brian Schweitzer, SME Highwood Generating Station Project Manager Tim Gregori and SME Board member John Prinkki announced that SME had received notification from the US Department of Agriculture of the completion of a final Environmental Information Statement (EIS) for the project.

The receipt of a final EIS is a major step forward for SME's planned 250Mw coal-fired electric generation facility to be located near Great Falls. The final EIS triggers a second federal comment period of 30 days after which the agency will prepare and publish a Record of Decision (ROD). With the ROD in place, the project can move forward once its state permits are received. According to Gregori the EIS publication allows the Montana Department of Environmental Quality (MDEQ) to proceed with its Air Quality Permit, the final step in the plant's environmental requirements.

"We are pleased that the EIS gave us such a positive report as far as environmental issues are concerned," Gregori said. "We have been committed from the start to put into the facility the best clean coal technologies available for a Circulating Fluidized Bed (CFB) plant, and that effort has been recognized by the EIS."

In addition to the news about the EIS, Gregori and Prinkki informed Governor Schweitzer of SME's decision to modify the design of its plant to accommodate the capture of carbon dioxide (CO<sub>2</sub>). "Even though there is no present requirement to do so, SME is working with ALSTOM Power to evaluate several technological options for CO<sub>2</sub> capture," Gregori told the Governor. "We fully expect that we will be able to add carbon capture to our environmental control efforts at the plant as it proceeds." (See attached memorandum about the CO<sub>2</sub> capture efforts at ALSTOM.)

Gregori told the Governor, who has been pushing clean coal technologies, including the capture of CO<sub>2</sub>, that SME was responding to his leadership on the issue and to the desires of the citizens of Montana and the Great Falls area. "We have heard your call for Montana to lead the way in 'clean & green' power development and have attempted to help you meet that important

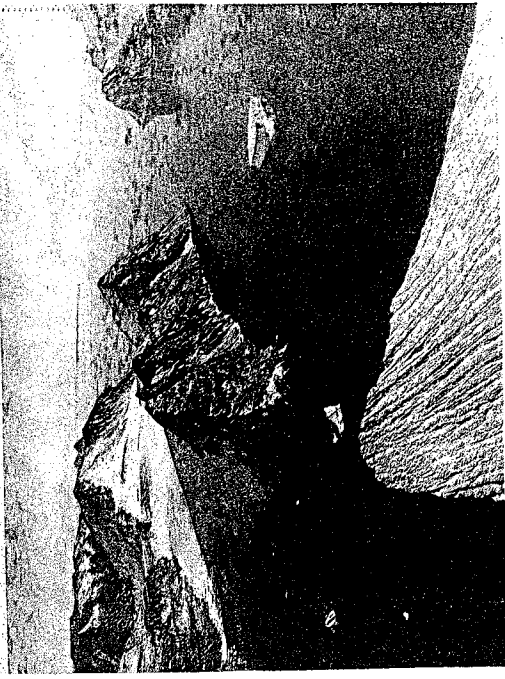
objective for both our state and nation," Gregori said. "We have also heard the voice of Montana's citizens who want power projects in Montana to be as clean as technologically possible, including the reduction of 'greenhouse gases'."

Gregori said that he hoped the completed project would both capture and sequester CO<sub>2</sub> well enough to qualify for new "clean & green" incentives announced by the Governor January 31. "But with or without those incentives, we expect to develop the plant in a manner that fulfills the visions of both SME and Governor Schweitzer," Gregori said.

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SME is a rural electric cooperative made up of five member coops and the City of Great Falls that provides electric energy and related services to its customers in south and central Montana. SME's offices are located in Billings, MT. SME is engaged in the development of a 250Mw coal-fired electric generation facility, plus 6Mw of windpower, in order to control the cost and long-term reliability of its power supply in the face of an imminent cutoff by its major energy supplier. For more information on SME, please visit our website at [smegt.net](http://smegt.net).

# The Warming of Greenland



By JOHN COLLINS WHOLE

**Arctic melting accelerates, revealing uncharted islands and threatening to raise sea levels all over the world.**

IN VERPOOL, LAND, Greenland — The big, overgrown peaks and into a thick blanket of snow. The ice is melting, revealing a world of soft, brown, mossy ground. A small boat is visible in the distance, and the water is dark and calm. The sky is overcast, and the overall scene is one of quiet isolation.

Despite its remote location, the tiny, ice-covered island of Jan Mayen, named after a Norwegian explorer, has been a hot spot for scientists studying the effects of global warming. The island is located in the North Atlantic, and its ice is melting at a rapid rate, revealing a world of soft, brown, mossy ground. A small boat is visible in the distance, and the water is dark and calm. The sky is overcast, and the overall scene is one of quiet isolation.

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## The Peninsula That Wasn't

A peninsula long thought to be part of Greenland's coastline turned out to be an island when a plane crashed, leaving a search of the area. The plane was found in the 2005 photo above, then from a lower angle, under a rising sun.



# As Greenland Warms, Sea Levels Rise and Islands Emerge

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lines. Nunataks — "lone mountains" in Inuit — that were encased in the margins of Greenland's ice sheet are being freed of their age-old bonds, exposing a new chain of islands and a new opportunity for Arctic explorers to write their names on the landscape.

"We are already in a new era of geography," said the Arctic explorer Will Steger. "This phenomenon — of an island all of a sudden appearing out of nowhere and the ice melting around it — is a real common phenomenon now."

In August, Mr. Steger discovered his own new island off the coast of the Norwegian island of Svalbard, high in the polar basin. Glaciers that had surrounded it when his ship passed through only two years earlier were gone this year, leaving only a small island alone in the open ocean.

"We saw it ourselves up there, just how fast the ice is going," he said.

With 27,555 miles of coastline and thousands of fjords, inlets, bays and straits, Greenland has always been hard to map. Now its geography is becoming obsolete almost as soon as new maps are created.

Hans Jepsen is a cartographer at the Geological Survey of Denmark and Greenland, which produces topographical maps for mining and oil companies. (Greenland is a largely self-governing region of Denmark.) Last summer, he spotted several new islands in an area where a massive ice shelf had broken up. Mr. Jepsen was unaware of Mr. Schmitt's discovery, and an old aerial photograph in his files showed the peninsula intact.

"Clearly, the new island was detached from the mainland when the connecting glacier-bridge retreated southward," Mr. Jepsen said, adding that future maps would take note of the change.

The sudden appearance of the islands is a symptom of an ice sheet going into retreat, scientists say. Greenland is covered by 630,000 cubic miles of ice, enough water to raise global sea levels by 23 feet.

Carl Egede Boggild, a professor of snow-and-ice physics at the University Center of Svalbard, said Greenland could be los-



Photographs by Jeff Shea for The New York Times

**NEW LANDS** Glacial ice is melting across the Arctic Circle. Dennis Schmitt, a 60-year-old explorer, discovered an island in Greenland that had been bound to the mainland.

## Scientists are changing their thinking about how quickly ice sheets can melt.

"That corresponds to three times the volume of all the glaciers in the Alps," Dr. Boggild said. "If you lose that much volume you'd definitely see new islands appear."

He discovered an island himself a year ago while flying over northwestern Greenland. "Suddenly I saw an island with glacial ice on it," he said. "I looked at the map and it should have been a nunatak, but the present ice margin was about 10 kilometers away. So I can say that within the last five years the ice margin had retreated at least 10 kilometers."

The abrupt acceleration of melting in Greenland has taken climate scientists by surprise. Tidewater glaciers, which dis-

in the process called calving, have doubled and tripled in speed all over Greenland. Ice shelves are breaking up, and summertime "glacial earthquakes" have been detected within the ice sheet.

"The general thinking until very recently was that ice sheets don't react very quickly to climate," said Martin Truffer, a glaciologist at the University of Alaska at Fairbanks. "But that thinking is changing right now" because we're seeing things that people have thought are impossible.

A study in The Journal of Climate last June observed that Greenland had become the single largest contributor to global sea-level rise.

Until recently, the consensus of climate scientists was that the impact of melting polar ice sheets would be negligible over the next 100 years. Ice sheets were thought to be extremely slow in reacting to atmospheric warming. The 2001 report by the Intergovernmental Panel on Climate Change, widely considered to be an authoritative scientific statement on the potential impacts of global warming, based its conclusions about sea-

dicted a slow onset of melting in Greenland.

"When you look at the ice sheet, the models didn't work, which puts us on shaky ground," said Richard Alley, a geosciences professor at Pennsylvania State University.

There is no consensus on how much Greenland's ice will melt in the near future, Dr. Alley said, and no computer model that can accurately predict the future of the ice sheet. Yet given the acceleration of tidewater-glacier melting, a sea-level rise of a foot or two in the coming decades is entirely possible, he said. That bodes ill for island nations and those who live near the coast.

"Even a foot rise is a pretty horrible scenario," said Stephen P. Leatherman, director of the Laboratory for Coastal Research at Florida International University in Miami.

On low-lying and gently sloping land like coastal river deltas, a sea-level rise of just one foot would send water thousands of feet inland. Hundreds of millions of people worldwide make their homes in such deltas; virtually all of coastal Bangladesh lies in the delta of the Ganges River. Over the long term, much larger sea-level rises would render the world's coastlines unrecognizable, creating a whole new series of islands.

"Here in Miami," Dr. Leatherman said, "we're going to have an ocean on both sides of us."

Such ominous implications are not lost on Mr. Schmitt, who says he hopes that the island he discovered in Greenland in September will become an international symbol of the effects of climate change. Mr. Schmitt, who speaks Inuit, has provisionally named it Unatog Qeqertog: the warming island.

Global warming has profoundly altered the nature of polar exploration, said Mr. Schmitt, who in 40 years has logged more than 100 Arctic expeditions. Routes once pioneered on a dogsled are routinely paddled in a kayak now, many features, like the Ward Hunt Ice Shelf in Greenland's northwest, have disappeared for good.

"There is a dark side to this," he said about the new island. "We felt the exhilaration of discovery. We were exploring something new. But of course, there was also something scary about what we did there. We were looking in the face of these changes, and all of us were thinking of the